

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the elongate portion having a transverse dimension and cross-sectional area that is substantially uniform over its length (claim 1; the elongate portion understood to be part of section 21, is shown to have a taper along the entire length thereof, thus failing to support the claimed substantially uniform transverse dimension and cross-sectional area), the elongate portion having the major transverse axis extending in a direction from the front to back of the cleaner (claim 4; the elongate portion is not actually shown in the claimed orientation), the outlet port and means for selectively connecting the outlet port to either the first or second inlet port (claims 7 and 10; the actual outlet port and mechanism for connecting to either inlet port is not shown in the drawings) and the catch and resilient bias (claims 9 and 10; catch, indicated in the specification as number 17, is not shown in the drawings, nor is any type of resilient bias) in must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 4 is objected to because of the following informalities: the major transverse axis of the elongate portion (claimed in claim 3) is not understood to extend between the front and back of the cleaner, as claimed in claim 4. Alternatively, it is best understood that the applicant is intending to claim that the major transverse axis is positioned parallel to an axis or in a direction extending from the front to the rear of the cleaner. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1, 8 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure of the specification and drawings in the present application fail to provide full, clear or concise descriptions of how the outlet port is connected to the dust separation device or either inlet port or what the "means for selectively engaging" are that will allow the outlet port to be selectively connected to either of the first or second inlet ports or provide any structure or support for how the actuator is connected to the valve in a manner to allow the actuator to move any part of the valve when the handle is removed or replaced into the upright portion of the cleaner. Additionally, with reference to claim 10, the application fails to provide any support that enables the valve to be actuated upon release of said catch. The disclosure suggests that the valve is moved by removal of the handle, which may require release of the catch, but does not provide any functional relationship between the catch and the valve. For the sake of the current Office Action, it will be assumed that this portion of claim 10 (lines 6-7) is intended to claim, as best understood by the examiner, that the valve is actuated when the handle is removed by releasing the catch, and will be treated as such during examination.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5, 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worwag (5,617,611).

7. In reference to claim 1, Worwag provides a vacuum cleaner having a floor-engaging portion (1) having a first air inlet on an underside thereof, an upright portion (33) pivotally connected at its lower to said floor-engaging portion, a handle (60) upstanding from the upper end of said upright portion and having a first end and a second end, said first end of the handle being detachably engaged with a formation (32) on said upright portion, a rigid tubular duct (60a/60b) extending along the handle between a second air inlet at said first end thereof and an outlet (70) disposed remote from said first end, and an elongate flexible hose (50) having a first end and a second end, the first end of the hose being connected to said outlet on said handle, wherein the cross-sectional area of the rigid tubular duct extending along the handle increases substantially (as seen in Figs. 9 and 10 to allow for telescoping and/or Figs. 6 and 8 showing the rigid tubular dust with a cleaning attachment with a decreasing cross-sectional area connected thereto) from said second air inlet at said first end of the handle towards said outlet disposed remote from said first end of said handle, the rigid tubular duct having, at said first end of the handle, an elongate portion in the form of

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cleaning attachment 53'. However, Worwag fails to show the specific structure for the cleaning attachment 53' but does provide an alternative embodiment (Figs. 9 and 10) having a similar cleaning attachment (53) on the flexible hose instead of the rigid tubular duct. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the cleaning attachment (53') may be the same as the cleaning attachment (53) shown in the alternate embodiment which has at least one of a transverse dimension and a cross-sectional area which is substantially uniform over its length (as clearly seen in Figs. 9 and 10).

8. In reference to claims 5, 6, 11 and 12, Worwag further clearly provides all of the structure set forth in the claims.

9. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worwag (5,617,611) in view of Wessel (GB 2076642).

10. In reference to claims 2 and 3, Worwag discloses the vacuum cleaner having the elongate portion of duct (60) with a cross-sectional area that is clearly smaller than the cross-sectional area of the duct adjacent the outlet and having a dimension along a major transverse axis that is greater than a dimension along a minor transverse axis that is perpendicular to the major transverse axis. However, Worwag fails to disclose any specific relative dimensions between the cross-sectional area of the elongate portion and the cross-sectional area of the duct adjacent the outlet or between the dimensions of the elongate portion along the major and minor transverse axes. Wessel discloses a similar cleaning attachment for a vacuum cleaner and teaches that the

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attachment may be formed of a material that may be trimmed by a user, teaching that it is desirable to have different sized and/or shaped openings in cleaning attachments to accommodate the attachment for specific applications (Pg. 1, lines 43-46). Thus, Wessel teaches that suction cleaning attachments may desirably be provided with a range of different dimensions to be most effective for specific applications, suggesting that it would have been obvious for the cleaning attachment disclosed by Worwag to be formed in any range of dimensions and shapes, wherein it would have been obvious in particular applications for the elongate portion to have a cross-sectional area between 40-60% of the cross-sectional area of the duct adjacent the outlet and for the dimension of the elongate portion in the major transverse axis to be at least 40% greater than the dimension along the minor, perpendicular, axis. The applicant fails to provide any evidence of criticality or unexpected results for the claimed ranges and the Wessel reference clearly suggests that the dimensions and shapes for a suction cleaning attachment are result effective variables, thus the claimed ranges are made obvious in view of the prior art (see MPEP 2144.05, section II).

11. In reference to claim 4, as shown in Fig. 6 of Worwag, it further would have been obvious that the cleaning attachment may be oriented in any direction within socket 32, including a position having the major transverse axis aligned along a direction extending from the front to the rear of the cleaner.

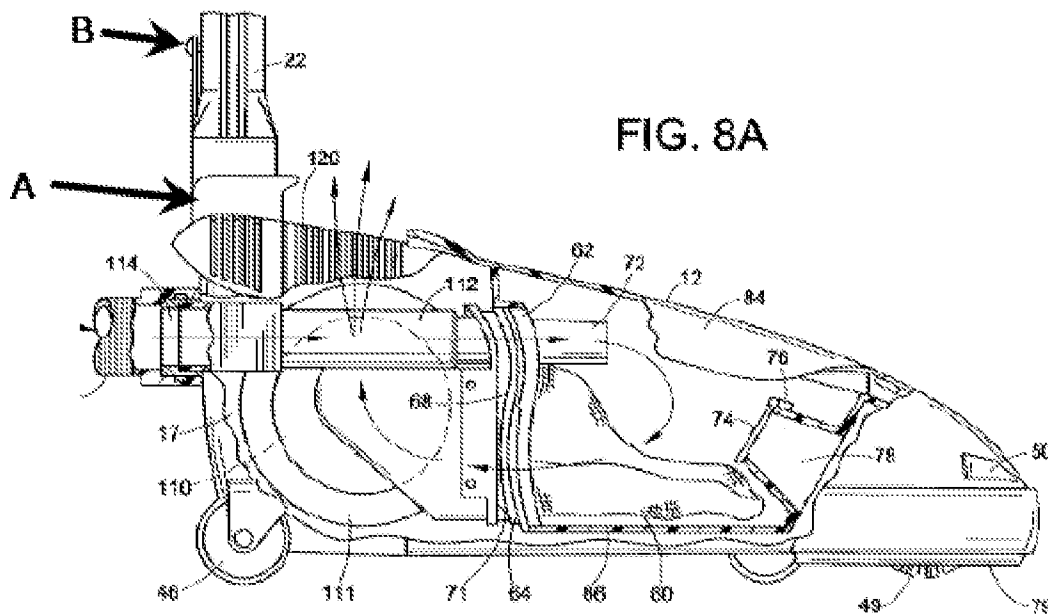
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12. Claims 1, 2, 5, 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. (6,317,920) in view of Weaver et al. (5,309,600) and Wessel (GB 2076642).

13. In reference to claim 1, Brickner provides a vacuum cleaner having a floor-engaging portion (10) having a first air inlet on an underside thereof, an upright portion (rear connecting portion of floor-engaging portion) pivotally connected at its lower to said floor-engaging portion, a handle (22) upstanding from the upper end of said upright portion and having a first end and a second end, said first end of the handle being detachably engaged with a formation (A below) on said upright portion, a rigid tubular duct (22) extending along the handle between a second air inlet at said first end thereof and an outlet (41) disposed remote from said first end, and an elongate flexible hose (44) having a first end and a second end, the first end of the hose being connected to said outlet on said handle. However, Brickner fails to disclose that the cross-sectional area of the rigid tubular duct extending along the handle increases substantially from said second air inlet at said first end of the handle towards said outlet disposed remote from said first end of said handle, the rigid tubular duct having, at said first end of the handle, an elongate portion with a transverse dimension or cross-sectional area which is substantially uniform over its length. Weaver discloses a similar vacuum cleaner having a removable attachment for converting the cleaner to off-the floor cleaning from a floor cleaning mode, wherein the end of a rigid tubular duct (38) is designed to have a substantial decrease in the cross-sectional area thereof along the length to provide a semi-conical shape that will allow the duct to engage with a socket in the main body,

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when positioned for the floor cleaning mode, to have an interference fit therewith, thus providing a sufficiently sealed and secure connection between the duct and a suction pipe connecting the duct to a suction unit. Further, as discussed supra, Wessel discloses a cleaning attachment having a similar semi-conical shape and teaches that the shape is desirable for different cleaning applications. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the first end of the rigid duct of Brickner with a similar elongate portion having a substantial increase in cross-sectional area from said second air inlet at said first end of the handle to the outlet thereon, as taught by Weaver, to provide an interference fit with the socket (portion A) that receives the first end of the handle to provide a sufficiently sealed and secure connection between the duct and a suction pipe connecting the duct to a suction unit and to provide a desirable shape to the end portion of the cleaning pipe, as taught by Wessel. Further, Weaver clearly shows, in Fig. 5, that the walls of the rigid duct are substantially uniform thickness over the length thereof, which will provide uniform strength to the duct. Therefore, it further would have been obvious to provide the elongate portion as applied to the first end of the handle of Brickner with similar uniform thickness walls, which will provide a uniform transverse dimension along the length of the elongate part.



14. In reference to claim 2, as discussed supra, Wessel further discloses that it is desirable for suction cleaning attachments to be provided with a range of different dimensions to be most effective for specific applications, suggesting that it would have been obvious for the cleaning attachment, in the form of the elongate portion at the first end of the handle, as applied to Brickner, to be formed in any range of dimensions and shapes, wherein it would have been obvious in particular applications for the elongate portion to have a cross-sectional area between 40-60% of the cross-sectional area of the duct adjacent the outlet. The applicant fails to provide any evidence of criticality or unexpected results for the claimed range and the Wessel reference clearly suggests that the dimensions and shapes for a suction cleaning attachment are result effective variables, thus the claimed ranges are made obvious in view of the prior art (see MPEP 2144.05, section II)

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15. In reference to claims 5, 6, 11 and 12, Brickner further clearly provides all of the structure set forth in the claims.

16. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. (6,317,920) in view of Weaver et al. (5,309,600) and Wessel (GB 2076642) as applied to claim 1 and further in view of Dyson (4,377,882).

17. In reference to claims 7 and 8, Brickner discloses the vacuum cleaner, as discussed supra, further disclosing that a user must insert an end of the hose (44) into the back of the floor-engaging section (Fig. 8A) to adapt the vacuum for off-the floor cleaning and must remove the hose from the floor-engaging section and cover the socket therein with a cap (116; Fig. 8B) to adapt the vacuum for on-floor cleaning. Dyson discloses a similar vacuum cleaner for cleaning either in on-floor or off-the-floor cleaning modes and Dyson provides a valve that having first and second inlet ports connected to a first floor cleaning inlet and a second off-the-floor cleaning inlet in rigid duct for selectively connecting either of the inlet ports with the outlet port leading to a dirt collection apparatus, the valve having an actuator (88/89) that causes the valve to connect the first inlet with the outlet when the rigid duct is inserted into a recess in the main body of the cleaner for on-floor cleaning and causes the valve to automatically connect the second inlet to the outlet when the rigid duct is removed from the recess for off-the-floor cleaning, such that a user does not need to make any connections or adjustments to the cleaner when converting between modes, allowing a user to quickly and easily convert the vacuum from one mode to another, which may regularly be done

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through the course of cleaning and will therefore save time and effort for the user.

Therefore, it further would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the vacuum cleaner of Brickner with a similar valve mechanism, as taught by Dyson, for automatic connection between the desired inlet with the outlet controlled by insertion or removal of the handle portion to/from the receiving formation on the upright portion of the vacuum cleaner to reduce the effort and time necessary for a user to change between cleaning modes while using the vacuum cleaner.

18. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. (6,317,920) in view of Weaver et al. (5,309,600) and Wessel (GB 2076642) as applied to claim 1 and further in view of Atsuo et al. (JP 2002-233483).

19. In reference to claim 9, Brickner discloses the vacuum cleaner, as discussed supra, and appears to include a catch with a resilient bias (B above) for retaining the handle to the upright portion but fails to specifically disclose such a catch. Atsuo discloses a similar vacuum cleaner having a removable rigid duct for use in an off-the-floor cleaning mode, that is also used to control the vacuum cleaner in the floor cleaning mode and Atsuo discloses that the handle is provided with a catch (12/12a) that will automatically secure the handle to the rest of the vacuum cleaner upon insertion of the handle into a recess on the cleaner (paragraphs 18-19 of machine translation) to ensure that the handle remains secured to the vacuum cleaner during floor cleaning while also allowing for quick and easy disengagement of the handle for off-the-floor cleaning.

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Further, it is old and well known that typical automatic catch mechanisms include some form of resilient bias to bias the catch into the locking position, to further increase the ease of use. Therefore, it further would have been obvious to one of ordinary skill in the art either to make the catch (B above) shown by Brickner as a known resiliently biased catch or to provide the handle with such a catch, as taught by Atsuo, for securing the handle to the vacuum cleaner during floor cleaning while also allowing for quick and easy disengagement of the handle for off-the-floor cleaning.

20. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. (6,317,920) in view of Weaver et al. (5,309,600), Wessel (GB 2076642) and Atsuo et al. (JP 2002-233483) as applied to claim 9 and further in view of Dyson (4,377,882) as applied to claims 7 and 8.

21. As discussed supra, it would have been obvious to one of ordinary skill in the art to provide the vacuum cleaner of Brickner with a similar valve mechanism, as taught by Dyson, for automatic connection between the desired inlet with the outlet controlled by insertion or removal of the handle portion to/from the receiving formation on the upright portion of the vacuum cleaner to reduce the effort and time necessary for a user to change between cleaning modes while using the vacuum cleaner, Wherein removal of the handle, to actuate the valve would further require release of the catch taught by Atsuo.

Double Patenting

22. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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23. Claims 1, 7 and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,676,883 in view of Weaver et al. (5,309,600), Wessel (GB 2076642). Although the conflicting claims are not identical, they are not patentably distinct from each other because the only structure not claimed in claim 1 of U.S. Patent No. 7,676,883 is the general shape of the rigid tubular duct, whereas the claimed structure in the current application is made obvious by Weaver and Wessel as also applied to the Brickner reference for claim 1 above (paragraph 13).

24. Claims 1 and 7-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 (applied to current claims 1, 7 and 8) and 8 (applied to claims 1, 9 and 10) of U.S. Patent No. 7,356,874 in view of Weaver et al. (5,309,600), Wessel (GB 2076642). Although the conflicting claims are not identical, they are not patentably distinct from each other because the only structure not claimed in claim 1 of U.S. Patent No. 7,356,874 is the general shape of the rigid tubular duct, whereas the claimed structure in the current application is made obvious by Weaver and Wessel as also applied to the Brickner reference for claim 1 above (paragraph 13).

25. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/423,466. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only structure not claimed in claim 1 of copending Application No. 11/423,466 is the general shape of the rigid tubular duct, whereas the

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claimed structure in the current application is made obvious by Weaver and Wessel as also applied to the Brickner reference for claim 1 above (paragraph 13).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jacobs et al. (5,477,586) and Graham et al. (5,560,074) both provide vacuum cleaners having similar structure as the applicant's claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN R. MULLER whose telephone number is (571)272-4489. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bryan R Muller/
Primary Examiner, Art Unit 3727
4/22/2010